

APPENDIX J

Platform Recovery Procedures

Purpose

Operational Recovery Plan – **Restoration procedures should include recovery of servers, mainframes, midrange computers, networks, and applications.**

[Click Here And Enter High Level Statement Of What This Procedure Provides](#)

Example: This procedure is designed to provide you with the necessary procedure to recover NT Server 4.0 to dissimilar system hardware configurations.

Overview

[This section should provide a high level description of the platform being recovered.](#)

Example:

When recovering NT one of key design features is portability. Windows NT runs on both CISC (Intel) and RISC (PowerPC) processors. The hardware specific NT components are located in a layer of software referred to as the Hardware Abstraction Layer (HAL). The HAL functions by serving as the interface between the hardware and device drivers/applications. Applications and device drivers are not permitted to work directly with the hardware and must make calls to HAL routines to obtain hardware information. The HAL enables NT to run on different platforms with different processing architectures.

Note: The HAL is installed at the time of setup and can be different based on system.

The NT Registry is a structured configuration database containing information about the hardware and software installed on a computer. Configuration data for the entire system resides in the Registry. Some of the key components of the Registry are hardware settings, device drivers, services, applications, and user account information. The Registry controls what architectural components are integrated into the system, when those components will start, and what they depend on. The loading of the operating system files is also dependent upon Registry entries.

How does this affect recovery? In the past, a “bare metal” full restore required that the destination hardware configuration must be identical to the source hardware the backup tape set was created from. Because NT is designed to detect hardware differences, you cannot perform a full restore to a dissimilar system configuration without difficulty. If you choose to restore to a different hardware configuration the following technique can simplify the restoration process.

The other option is to re-install the operating system, re-install all applications that edit the Registry, restore the subset of the Registry that contains user account information, and then the actual data.

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Sample Restoration Procedure

Recovery Requirements for: XYZ_1

MAO: 48 Hours

Priority: 1

Equipment Configuration

Equipment Type	Brand/Model #	Specifications (RAM, Disk, CD, Diskette, MHz, Etc)	Add-ons (NIC, PCI, Zip Drive, Monitor, Etc.
Server	Compaq Proliant 1600R NT, SP6	128 MB RAM, 47 GB Disk (C:\ = 4 GB, D:\ = 4.2 GB, E:\ = 25 GB, F:\ = 13.5 GB), G:\ = CD-ROM	Built-in NIC, Smart Array 3200 Controller, 18.2 GB Plug w/U SCSI-3.
Tape Drive	DLT7000	Dual Drives – Uses Veritas Netbackup	
Data Circuits:	Switch 56k		
Printers:	(20) HP 8000 Laser Jet (Programs & IT)		
Zip-Drive			

Active Applications Running on XYZ_1

Product	Version	Priority	Platform	Location	Vendor	Business Owner	Technology Support
Access 97	97	2	NT	Standard W\S	Microsoft	Infrastructure	Net Ops
Ace Secure ID	3.2	1		\\Securid_40	Security Dynamics	Infrastructure	Net Ops
Adaptec Easy CD Creator	5.7	3	NT	\\CPQ0049A and \\DEC0180		ABC	Net Ops
Address Check	4.2	1	NT	\\ap-prd01		XYZ	Net Ops
Adjust Batch	1.0			\\am-dev01		Infrastructure	Net Ops
Adobe Premiere	5.0	3	NT	Standard W\S	Adobe	ISO	Net Ops
Agent System	3.7	2	NT	\\ap-prd01	Pictorial, Inc.	PS	Net Ops/CS Prog

To ensure this restore process executes correctly, the following items and information from the source system listed below are required:

Tools Required	√
➤ A complete backup of the source server (i.e. Full backup including Registry)	
➤ An original copy of Windows NT 6.0	
➤ A copy of the backup/restore software used to create the restore tape set	
➤ Any service packs for the backup/restore software applied to the source system	
➤ NT Application backup tapes for RightFAX, Net FAX Server, Domain Logon Sec Server	
Information Required	
➤ Server Name: XYZ_1	
➤ Server Domain Name: ABCDEF	
➤ Server Type (PDC, BDC or Standalone Server):	
➤ Network configurations. TCPIP or PX addresses, TCPIP Gateways, WINS configurations and DNS configuration	
➤ Service pack level: 6	
➤ Client/Server Application recovery and setup details (below)	

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Sample Restoration Procedure

The following table provides special instructions effecting the complete restoration and operation of this platform and the applications running from it. For example, special requirements for restoring any application, such as incorporation of cross-application synchronization points, applications or other platforms that must be operational with this platform, etc. Reference may be made to the Application Inventory list or others if this information is already available elsewhere in the ORP.

Special Instructions	✓
Application ABC requires data synchronization with application XYZ.	
The OEM for this operating system must be called to obtain a security key that allows this O/S to run on a server with a different serial number.	
Security parameters must be reset to allow restoration of the application from backup tapes.	

IT Recovery Team Responsibility for This Platform

Enter the members of the IT Recovery Team that are qualified and/or authorized to execute all or part of these recovery procedures.

Sample

Name	Recovery Role	Job Title
Jon Smithe	Lead NT Recovery Team	NT System Administrator
Sonjia Martinez	UNIX Recovery Team Member	UNIX Administrator
Bob Jones	MVS Recovery Team Leader	System Programmer
George Smalley	Medi-Cal Recovery Team	Application Programmer

Sample Server Recovery Procedure

Step	Action	✓
1	Install, configure, and connect the target server hardware	
2	Install Windows NT Server 6.0 on the target server <ul style="list-style-type: none"> If additional disk subsystem adapters need to be specified follow the prompts for adding the additional adapters as necessary then continue. 	
3	Install the <u>SAME</u> service pack level on the target server as the source server.	
4	Install the tape backup/restore software <ul style="list-style-type: none"> Include any tape backup/restore software service packs that were applied to the source 	

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Step	Action	√
	system on the target system.	
5	Restore all drive partitions to the target server from the source server tape <ul style="list-style-type: none"> Exclude the following files: <ul style="list-style-type: none"> BOOT.INI HAL.DLL NTOSKRNL.EXE 	
6	Shut down and restart the system	
7	Place the Windows NT Setup #1 disk in the floppy drive A <ul style="list-style-type: none"> Follow the setup process. If additional disk subsystem adapters need to be specified follow the prompts for adding the additional adapters as necessary then, Continue until you get the License agreement (where the “F8” key is pressed to agree). 	
8	Press “Page Down” to the end of the license agreement <ul style="list-style-type: none"> When prompted, press “F8” key to agree. 	
9	Press “ENTER” to accept the option to upgrade Windows <ul style="list-style-type: none"> If you do not have this option once the license is agreed to, you will have to reboot and go back to Point One. Note: This may happen if all the necessary disk subsystem adapters/devices were not detected	
10	Follow the upgrade option by pressing “ENTER” to continue with disk examination. <ul style="list-style-type: none"> This has a TEXT based section that will prompt you to reboot. Follow the on-screen instructions to continue to restart the system and take you to a GUI based section of the setup. 	
11	Follow the on-screen instructions to continue and accept the defaults as you proceed. <ul style="list-style-type: none"> If prompted to install Microsoft Internet Information Server, deselect this option and continue. At the end of the GUI based section of the Upgrade process, restart the system as instructed. 	
12	If prompted about the display resolution, select “OK” <ul style="list-style-type: none"> Test the video as instructed to continue 	
13	Windows NT should now be working. However, <ul style="list-style-type: none"> The integrity of the network and system configuration must be re-verified 	

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Step	Action	√
14	<p>Remove any unnecessary drivers associated with the hardware of the source system, via the “Control Panel” (e.g., disk subsystem adapter drivers)</p> <p>Note: Use the system “Event Log” to aid in determining which drivers are acceptable to remove.</p> <ul style="list-style-type: none"> • Using the “Network Control Panel” applet, remove/Add/reconfigure the network adapter(s) • Information such as the TCP/IP address information will be needed here if applicable. 	
15	Shut down and restart the system	
16	Re-apply the applicable Windows NT operating system service pack.	
17	Restart the system after the service pack has been applied	
18	<p>Verify the integrity of the DOMAIN and SHARES by using the normal Windows NT administration tools (e.g., Server Manager, and User Manager For Domains).</p> <p>Note: If the server being restored is residing in a resource domain, trusted relationships will need to be re-established with the appropriate Accounts domain.</p> <p>The server OS restoration is now complete; you may begin application restoration.</p>	

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Platform Recovery Procedures

Purpose

[Click Here And Enter High Level Statement Of What This Procedure Provides](#)

Overview

[Click Here And Enter High Level Description Of The Platform Being Recovered](#)

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Platform Restoration Procedure

Recovery Requirements for: [Click Here And Enter Name Of Platform](#)

MAO: [Enter MAO For This Platform](#)

Priority: [Enter Priority Based On MAO](#)

Equipment Configuration

Equipment Type	Brand/Model #	Specifications (RAM, Disk, CD, Diskette, MHz, Etc)	Add-ons (NIC, PCI, Zip Drive, Monitor, Etc.
Server	Click Here And Begin Entering Specifications For This Platform		
Tape Drive			
Data Circuits:			
Printers:			
Zip-Drive			
Other			

Active Applications Running on [Click Here And Enter Platform Name](#)

Product	Version	Priority	Platform	Location	Vendor	Business Owner	IT Support
Click Here And Enter Product Names							

To ensure this restore process executes correctly, the following items and information from the source system listed below are required:

Tools Required	√
➤ Example: A complete backup of the source server (i.e. Full backup)	
➤ Click Here And Enter Tools Required To Restore This Platform	
➤	
➤	
➤	
Information Required	
➤ Server Name: Click Here And Enter Server Name	
➤ Server Domain Name: Click Here And Enter Server Domain Name	
➤ Server Type (PDC, BDC or Standalone Server): Click Here And Enter Server Type	
➤ Network configurations. TCPIP or PX addresses, TCPIP Gateways, WINS configurations and DNS configuration: Click Here For To Enter Network Configuration	
➤ Service pack level: Click Here For Service Pack Level	

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Special Instructions

The following table provides special instructions effecting the complete restoration and operation of this platform, and the applications running from it. For example, special requirements for restoring any application, such as incorporation of cross-application synchronization points, applications or other platforms that must be operational with this platform, special OEM O/S keys needed to recover a system on a different server, etc. Reference may be made to the Application Inventory list or others if this information is already available elsewhere in the ORP.

Special Instructions
Click Here And Enter Special Instructions (If Any) For The Restoration Of This Platform

IT Recovery Team Responsibility for This Platform

Enter the members of the IT Recovery Team that are qualified and/or authorized to execute all or part of these recovery procedures.

Name	Recovery Role	Job Title
Click Here To List Platform Recovery Team		

Platform Recovery Procedure

Step	Action	√
1	Click Here To Begin Entering Step-By-Step Platform Recovery Procedures	
2		
3		
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5		
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13		

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Step	Action	√
14		
15		
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20		

Add more steps as needed.

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